UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,084	07/29/2003	Etienne Demeocq	886-011434-US(PAR)	5973

2512 7590 06/25/2004

PERMAN & GREEN
425 POST ROAD
FAIRFIELD, CT 06824

EXAMINER	
VERBITSKY, GAIL KAPLAN	

ART UNIT	PAPER NUMBER
2859	

DATE MAILED: 06/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/629,084	DEMEOCQ, ETIENNE	
	Examiner	Art Unit	
	Gail Verbitsky	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-5 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-5 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/02/2003.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1-5 are objected to because of the following informalities:

Claim 1: A) "the elements" in line 4, "the signal" in line 9, "the signal" in line 10, "these two the signals" in line 11 lack antecedent basis,

B) perhaps applicant should replace "these means" in lines 10-11 with – the means for amplifying— so as not to confuse "these means" with "the ambient temperature measuring means" and in order to clearly describe the invention,

Claim 2: "the forming means" in lines 1-2, "the printed circuit track" in line 4, "the cable connection" in line 8, "the summer circuit" in lines 6-7, "the ambient temperature sensor" in line 6 lack antecedent basis.

Also, perhaps applicant should replace "the first and second connection means" in line 3 with –the two connection means—for proper antecedent basis.

Claim 3: "the on-board circuits" in lines 2-3, "the tracks" in line 3 lack antecedent basis,

Claim 4: "the module" in line 1 lacks antecedent basis,

Claim 5: "the K-type" in line 1, "the first and second connection means" in line 4, "the copper" in line 4 lacks antecedent basis. Also, perhaps applicant should replace "the first and second connection means" in line 3 with –the two connection means—for proper antecedent basis.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In this case, the claim language is confusing because it is not clear if "a second cable connection post" is one of the "three connection posts" of claim 1. Furthermore, please note, that in the rejection on the merits, the examiner considers that "a second cable connection post" is one the "three connection posts" claimed in claim 1.

The term "very low" (low) in claim 2 is a relative term which renders the claim indefinite. The term "very low" (low) is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. In this case, the Examiner considers that any amplifier can be called a very low offset and drift amplifier if it has an error/ noise to signal ratio within limits predetermined for the particular circuit.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over nelson et al. (U.S. 6068400) [hereinafter Nelson] Hollander et al. (U.S. 6074089) [hereinafter Hollander 1]

Hollander 1 discloses a device/ connector module for a thermocouple comprising two connection means 10 for connecting a thermocouple to a printed board 11 having an appropriate circuitry for compensation and linearization circuit (on board electronic). The device also comprises connection posts (output terminals) 17-18 from the printed board to a connector supply and a signal transfer cable to transfer a signal formed on the printed board by means of a cable/ leads 19 to a meter or recording device 2, or a voltmeter (col. 5, lines 8-21). In addition, the device comprises a temperature sensor 108, which is disposed within the connector and measuring the temperature of the cold junction (ambient/ reference temperature within the connector). The device also comprises an amplifier 107 for amplifying a signal supplied by the thermocouple, means (MP) 104 for scaling/ correcting a signal supplied by the sensor 108 in a scaling means (microprocessor) 104, summing the amplified signal from the thermocouple and from the temperature sensor in a summing amplifier 110 which also provides a linear and compensated signal output (col. 6, line 53). It is inherent, that all the connection on the printed circuit 11 are performed via connection tracks. It is also inherent, that the linearized signal output from the amplifier 110 should be delivered to one of the connection (output) posts. The thermocouple is K-type thermocouple comprising chromel-

alumel hot junction. A voltage generator/ voltage regulator/ power supply circuit/ battery is connected to the printed board by means of interface.

With respect to claim 4: the particular size of the connector module, i.e., less then 30 mm by less then 20 mm by less then 10mm, as stated in claim 4, The particular size/ dimensions, absent any criticality, is only considered to be the "optimum" size of the connector module used by Hollander 1 that a person having ordinary skill in the art at the time the invention was made would have been able to determine using routine experimentation based, among other things, on the intended use of the device, etc. ***See In re Boesch, 205 USPQ 215 (CCPA 1980).*** Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dimensions of the connector, disclosed by Hollander 1, so as to minimize them as much as possible, so as to allow the user to use the device with portable devices such as, for example, a mobile phone.

Hollander 1 does not explicitly teach a third (second) cable connection post connected to a power/ voltage regulator, as stated in claims 1, 3. Hollander 1 does not explicitly teach that the temperature sensor is disposed between the two connection means, as stated in claim 1, with the remaining limitations of claims 1-4.

Nelson discloses in Figs. 2-5 a connector, the connector comprises a module (adapter) 40 having two connection means 37, 38, as shown in Fig. 4, for connecting to a thermocouple probe 50. The module also comprises comprises an ambient temperature sensing means (temperature sensor) 36 for sensing temperature in a connection portion (adapter) 30, the temperature sensor is

disposed between the two connection means for the thermocouple. As shown in Fig. 5, the connector can comprise three terminals/ common jack (connection posts) connecting the connector to a measuring circuit device 10' to supply power (col. 6, lines 56 and 60). Therefore, it would imply, that, at least one connector post is designated for a (second) cable for connecting to the power supply (voltage regulator).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device, disclosed by Hollander 1, so as to dispose the temperature sensor between the two connection means for the thermocouple, as taught by Nelsen, so as to keep the temperature closer to the thermocouple, in order to achieve more accuracy by measuring an immediate surrounding of the thermocouple's cold junction, and to minimize the dimensions of the connector, by improving a geometry of the device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add one more connection post, as taught by Nelsen, to the output of the connector, disclosed by Hollander 1, so as to enable a separate connection with a power supply, i.e., in case when the battery is accidentally discharged.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hollander 1 as applied to claims 1-4 above, and further in view of Hollander et al. (U.S. 4133700) [hereinafter Hollander 2].

Hollander 1 and Nelsen disclose the device as stated above in paragraph 5.

They do not explicitly teach a cooper wire, with the remaining limitations of claim 5.

Hollander 2 teaches that conductors 1b and 2b connecting a thermocouple to the rest of the circuit (printed circuit), as shown in Fig. 4, can be made of cooper.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device, disclosed by Hollander 1 and Nelsen, so as to have a lead cooper wire to connect the thermocouple to the connection means of the connector, as taught by Hollander 2, because it is well known in the art that cooper wires are strong, good electrical conductors, normally used for thermocouples leads providing a signal from the hot junction to an evaluation circuit.

Information Disclosure Statement

7. The information disclosure statement filed on October 02, 2003 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of "Other documents" listed in the IDS but not submitted to the USPTO. It has been placed in the application file, but the information referred to therein has not been considered.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (571) 272-2253 Monday through Friday 8:00 to 4:00 ET.

GKV

Gail Verbitsky
Primary Patent Examiner, TC 2800

June 16, 2004